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# A Geographical Study of Drainage Pattern in Chhatrapati Sambhajinagar District

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#### Introduction:

Chhatrapati Sambhajinagar district falls in the basin of Godavari and Tapi rivers and all the other rivers in Tapi basin of the district are small except Vaghur river. River Godavari, also known as the South Ganga, is the largest major river in Maharashtra and Chhatrapati Sambhajinagar district. The source of this river is at Brahmagiri near Trimbakeshwar in Nashik district. This river enters Vaijapur taluka of Chhatrapati Sambhajinagar district from Nashik and Ahmednagar districts and flows across the border at most places in Vaijapur, Gangapur and Paithan talukas.

#### Location, Extension and Boundaries:

Chhatrapati Sambhajinagar district in Marathwada is a very important district. Chhatrapati Sambhajinagar district extends from 19° 18' N to 20° 40' N latitude and 74° 40' E to 76° 40' E longitude. Chhatrapati Sambhajinagar district has an area of 10,137.61 sq km which is 3.28 percent of the state. Out of the area, 309.35 sq. km is urban and 9828.26 sq. km is rural. Chhatrapati Sambhajinagar district has Jalgaon district in the north, Jalna district in the east, Beed, Ahmednagar district in the west and Nashik and Ahmednagar districts in the west. **Drainage Pattern:** 

Chhatrapati Sambhajinagar district falls in the basin of Godavari and Tapi rivers and all the other rivers in Tapi basin of the district are small except Vaghur river. The length of major rivers in the district is km. is as follows.

Rivers in Chhatrapati Sambhajinagar district can be divided into three groups as follows.

#### a) Godavari and its tributaries

b) Purna, Dudhana and their tributaries

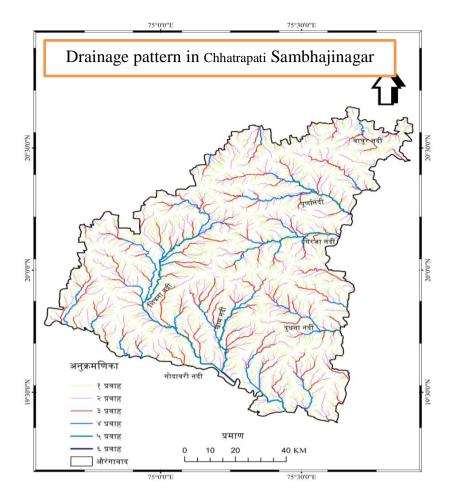
#### c) Rivers in the Tapi river basin

Sr. No.	Name of the river	Length of River (in km)
1	Godavari	135.85
2	Shivana	76.27
3	Purna	37.68
4	Kham	26.32
5	Giraja	20.57
6	dudhana	19.26
7	Waghur	14.68

Length of Major Rivers in Chhatrapati Sambhajinagar District (in km)

#### Source: District Economic and Social Review: Chhatrapati Sambhajinagar District 2022-23 Godavari River: talukas. This river covers about 2

River Godavari, also known as Dakshin Ganga, is the largest major river in Maharashtra and in Chhatrapati Sambhajinagar district, the river originates at Brahmagiri near Trimbakeshwar in Nashik district. This river enters Vaijapur taluka of Chhatrapati Sambhajinagar district from Nashik and Ahmednagar districts and flows across the border at most places in Vaijapur, Gangapur and Paithan talukas. This river covers about 230 km from the southern border of the district Dongaon to Ganj Bujurg. The area covered is up to Purna, Shivana, Kham, Dudhana, Girja are tributaries of Godavari in the district and most of these rivers originate from the mountains in Kannada tehsil. And generally dries up in summer. There is a big earthen dam called 'Nathsagar' Jayakwadi at Paithan on this river. This dam is the largest earthen dam in Asia.



#### Shivana River:

The entire western part of Verul range in Chhatrapati Sambhajinagar district is covered by this main river basin. River Shivana flows from the eastern slopes of the Ajantha Hills near Kalki village. This river extends to Kannada and its catchment area is from Ajantha mountain range in the north to Surpalnath mountain range in the south Near Kannad, this river has many small tributaries. To the south of Kannada, this river flows in a southwesterly direction till Naigaon, turns southwards and forks up to Pimpalgaon, from here it flows south-eastwards and meets the Godavari at Savarkheda.

#### Borinala:

Bora Nala the northernmost tributary of Shivana River, flows from Hilalpur. Koli Project is located at the junction of Shivana Vaijapur road. After passing Borsar, Bhaigaon, Parsoda and Karanjgaon, the stream turns south and joins the Shivana river at Kata Pimpalgaon.

#### Dhekunala:

This nala originates from Dheku village in Nashik district in Ajantha range through Gorakhnath and Kapilnath hills.

Flowing southwards it comes to Tunki village. To the south of this village, this drain meets the Karali drain. Of Dheku project is built below the

Smt. Sangita Subhash Bharati

confluence. This confluence further reaches the Shivana river at Katepimpalgaon

## Vel Ganga:

This river flows from the western side of the Verul range and flows through Verul village while the Khaki river passes near Kasab village. Flows both these rivers confluence a little ahead of Devgaon. Further, this confluence flows to the west and reaches the river Shivana

#### Kham River:

Kham River in Chhatrapati Sambhajinagar taluka crossing Chauka Hill Range to Chhatrapati Sambhajinagar It flows south-west from the city. Its tributaries are Nagzari and Burguli. There is a lake at Harsul on this river. This river joins the Godavari near Jogeshwari.

#### Yelganga:

It reaches Godavari in Wahat. This river flows above Kachner. The river which initially flows in the west then turns south-east and south

#### b) Purna, Dudhana and their tributaries: Purna River:

The river Purna is eight km north-east of the Satmala hills at an altitude of 775 m. Above the village of Mehur in the distance, the Ajantha flows through the range. It is the second most important river in the district after Godavari river. The catchment area of this river extends to Verul Ranga and Tapi-Godavari watershed. The important tributaries on the left or north bank of Purna river in the district are Charna, Kolna, Jui and Dharna and the tributaries on the right or south bank are Anjan, Girja, Jiwarkha and Dudhana.

#### Khelana :

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The main course of this river is less than a kilometer and it flows through Kelgaon, Chinchpur, Palod, Anvi, Avhana and Bhokardan and joins the Purna river at Jaffrabad.

#### Anjan :

Anjan is an important long tributary on the right (south) side of the Purna River. The source of this river is on the southern side of the Purna Anjan divide. This river to the east is Nimbhore, Vasari, Pishore etc. flows near villages and Two km from Dhano in the west. At a distance it meets the river Purna.

#### Girija :

The river originates from Mhaismal mountain and flows from west to east through Khuldabad and Phulumbri talukas. A dam has been constructed on this river at Yesgaon in Khuldabad taluka. Water is supplied to agriculture and Phulumbri town from this dam. Two km from Shirasgaon. From a distance it turns in the northwest direction and comes to the east.

#### Phulmasta:

Yavil is the main tributary of the right bank of the Girja river and it flows from the northern hills of Khuldabad and flows towards the east of Khuldabad and flows north-east and northwards to join the Girja river.

#### Banganga :

This Anjan-Girja flows through the divider. It flows south in a very straight line till Sangvi, from here it takes a turn and flows east, south-east direction to meet Girjes.

## Starvation :

It is a tributary of the North Kina Yaril Purna. It flows from above Longgaon in north-east direction to Akola. At Akola, it takes a turn and flows northwards to Tembhurni and meets the Purna Sangam. One and a half km from Akola. Jiwarkha Project, an earthen dam, has been constructed on this river at a distance.

## Dudhana:

It is the largest tributary of the Purna River and is as long as the Purna River up to its confluence. This river flows from the northern slope above Kankur village in the Verul range. This river is 15 km north of Chhatrapati Sambhajinagar town. flows through the distance. After an initial winding course, it flows south-east to Akola. Upper Dudhana Project, an earth dam has been constructed on this river at Somthana. After Akola, this river flows south near Badnapur and joins the Sukna river at Sade Sangvi. The left bank tributaries of Dudhana river are Balandi, Kundlika and Kalyan.

## Sukhna:

The river flows upstream of Kolthan village towards the west of the source of Lahuki river. Its initial journey is parallel to the river Kaum. Its main stream seems to be bifurcated by the river Kaum. This river flows in south east direction near Chikalthan village. It receives many small streams from both sides. Finally, this river joins Dudhana river at Sade Sangvi.

### Kalyan :

The river originates from the same divide east of Varud village and flows southwards to Pir-Kalyan. From here it takes a turn towards South East. Its left bank tributaries: Gandi and Girja join the river. This river joins the Dudhana river determining the district boundary for some time. c) Rivers in the Tapi river basin:

## Gadagarh :

The Gadgad River originates from the north-eastern and eastern slopes of the Satmala Hills and flows northwards. Nagad A tributary of the Girja river, coming out of the district, joins the Tittur. Gadagad project is built on this river. **Rngarai :** 

### It is a tributary of Gadgad river and flows through Ajantha range and joins Gadgad river. Its flow in the district is small.

Hivra :

It is an important river in the Tapi basin and its main course is near the steep slope south of Dudhamal. The river flows through Vadi, Banoti, Vathan and Ghorkund and exits the district at Mhsekotha. This river has many tributaries. Among them, Indragarhi, Utwali, Doha, Bawla, Khutki and Nandavahi etc. Includes rivers. The Khutki and Nandavi rivers define the boundary of the district.

#### Sonad :

This river flows north of Ghatambri and flows up to Soygaon, from here one km. I. After a gap it determines the boundary of the district and then it enters outside the district. It is a strong current and due to this, the watershed at Ghatambri is six and a half km south of the Abbasgad fort hills. **Waghur :** 

Waghur is an important river in Tapi Kho of the district. No other river has done what this river has done by vertical descent mining. One of its streams flows through Ajantha village and the other near Ajantha cave. The excavation of this river led to the creation of great works of art like the Ajanta Caves. The watershed of this river is 15 km. I. It has retreated till Fardapur.Other tributaries of Tapi river are Khadki, Meh, Kag and Kang which are relatively low flow tributaries. Only the dredging of the Khadki and Meh rivers has resulted in the creation of vertical slopes. Meh river exits the district below Rawal. River Kang flows near Sawaldbara.

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